















NOCOE SOUTHWEST PEER EXCHANGE TOPIC 3- EMERGING TECHNOLOGIES

Texas Department of Transportation



- What technologies are you using or do you think you can use for incident and emergency response?
 - San Antonio-
 - Police want to use drones for traffic investigations. They can perform investigations in half the time as they are doing now with Total Stations.
 - Houston-
 - TxDOT is currently investigating the use of video analytics for use in more aggressively identifying incidents in an automated fashion
 - In addition, the new mobile apps will allow for citizen reporting of incidents.
 - Waze is informally used to detect incidents by some, but not all, floor operators
 - The medical examiner has begun to prioritize response to fatal incidents, with very good results (response times cut by upwards of 50%)
 - Austin
 - Mobile application for SSP

- How integrated are you with emergency operations?
 - San Antonio-
 - SAPD dispatch is on our operations floor.
 - Receive a limited CAD feed from SAPD.
 - Operators have radios for Bexar County sheriff department, but need to improve integration with Bexar County
 - Houston-
 - Partner agencies are on the floor at TranStar working in coordination to monitor conditions and appropriately respond.
 - Agency managers coordinate with incident management strategies and the TIM committee is active and engaged and meets regularly to discuss overall performance and conduct after action reviews

- What type of support can your DOT operations provide to first responders?
 - Traffic control
 - Debris cleanup
 - Support on Hazmat (fuel spills)
 - Wrong-way driving tracking
 - Traveler information
 - Distributed video to local partners & media

Houston Video Analytics Pilot

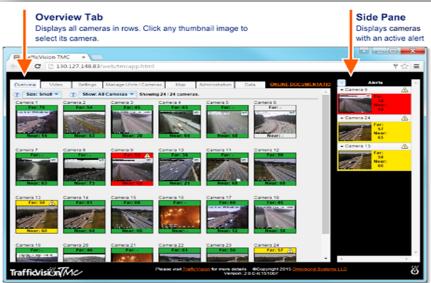
- √ TrafficVision (Omnibond Systems, LLC) came highly recommended by our primary camera vendor.
- √ One of few video analytics vendors focused only on transportation.
- √ Headquartered in South Carolina, with offices in VA.
- ✓ Deployments in US (e.g. Colorado, Kansas, Missouri, South Carolina, Ohio, and Delaware DOTs), Canada....currently testing in China and the UK.
- √ TrafficVision claimed capability in detecting stopped vehicles, pedestrians, debris, wrong-way vehicles, and congestion/slow speeds.
- **✓ Will be exhibiting at 2016 ITS Texas Annual Meeting.**

Houston Video Analytics Pilot









Traffic Management Systems September 9, 2016

Houston Video Analytics Pilot

Are more incidents detected?

462 additional stopped vehicle events

Are incidents detected any faster?

4½ min. (avg.) faster on 35 incidents

What is the accuracy of detected incidents? **24% false alerts**

Do operators find this tool beneficial? **Somewhat useful**

Traffic Management Systems September 9, 2016

- What type of activities does your DOT do in the event of an incident or emergency?
 - Monitor the incident and disseminate information,
 - Coordinate traffic control with partner agencies (for example, adjust signal timing),
 - Provide information to the media
 - We activate local district and statewide EOCs (TxDOT)
 - Go into 24 hour work mode
 - Implement appropriate traffic control measures
 - · Closures due to ice, rain, wildfire
 - Implement contra-flow or open Evacu-lane during hurricane evacuations
 - Expanded service patrol in rural areas during hurricane evacuations
 - Treat roads during ice storms